#### PATENT COOPERATION TREATY

#### From the INTERNATIONAL BUREAU

## **PCT**

NOTIFICATION CONCERNING
TRANSMITTAL OF COPY OF INTERNATIONAL
PRELIMINARY REPORT ON PATENTABILITY
(CHAPTER I OF THE PATENT COOPERATION
TREATY)

(PCT Rule 44bis.1(c))

The

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JAPON

Date of mailing (day/month/year)
28 December 2006 (28.12.2006)

Applicant's or agent's file reference 10020468WO01

IMPORTANT NOTICE

International application No. PCT/JP2005/010997

International filing date (day/month/year) 09 June 2005 (09.06.2005)

Priority date (day/month/year) 11 June 2004 (11.06.2004)

Applicant

CANON KABUSHIKI KAISHA et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

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### PATENT COOPERATION TREATY

## **PCT**

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 10020468WO01	FOR FURTHER ACTION	See item 4 below				
International application No. PCT/JP2005/010997	International filing date (day/month/year) 09 June 2005 (09.06.2005)	Priority date (day/month/year) 11 June 2004 (11.06.2004)				
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237						
Applicant CANON KABUSHIKI KAISHA						

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).					
2.	This REPORT consists of a total of 5 sheets, including this cover sheet.  In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.					
3.	This report contains indications of Box No. I  Box No. II  Box No. III  Box No. IV  Box No. V	Basis of the report Priority Non-establishment of opin applicability Lack of unity of invention	aion with regard to novelty, inventive step and industrial			
	Box No. VI  Box No. VII  Box No. VIII		explanations supporting such statement national application			
4.	4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).					
			Date of issuance of this report 14 December 2006 (14.12.2006)			
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland		ombettes	Authorized officer  Masashi Honda e-mail: pt08@wipo.int			
	Facsimile No. +41 22 338 82 70 e-mail: pt08@wipo.int					

### PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTH	ORITY				
То:		22/12	PCT		
see form PCT/ISA/220	REC'D US DEC 2005	VALUEDALATION	TEN OPINION OF THE NAL SEARCHING AUTHORITY PCT Rule 43 <i>bis</i> .1)		
	MECO DE	Date of mailing (day/month/year) se	e form PCT/ISA/210 (second sheet)		
Applicant's or agent's file reference see form PCT/ISA/220	Wild	FOR FURTHER A			
International application No. PCT/JP2005/010997	International filing date (d	day/month/year)	Priority date (day/month/year) 11.06.2004		
International Patent Classification (IPC) or t C08G63/688, C08G63/06, C08G63	both national classification a 3/91	and IPC			
Applicant CANON KABUSHIKI KAISHA					
This opinion contains indications relating to the following items:  This opinion contains indications relating to the following items:					
☑ Box No. I Basis of the opi ☐ Box No. II Priority	inion				
□ Box No. III Non-establishm	nent of opinion with rega	rd to novelty, inventiv	e step and industrial applicability		
_	☐ Box No. IV Lack of unity of invention				
Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement					
☐ Box No. VI Certain docume		ouppoining such state	SING! IL		
Box No. VII Certain defects	in the international appli	ication			
☐ Box No. VIII Certain observa					
2. FURTHER ACTION					
If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the international Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered.					
If this opinion is, as provided above submit to the IPEA a written reply months from the date of mailing o whichever expires later.	together, where approp	riate, with amendmen	PEA, the applicant is invited to its, before the expiration of three of 22 months from the priority date,		
For further options, see Form PCT/ISA/220.					
For further details, see notes to Form PCT/ISA/220.					
Name and mailing address of the ISA:		Authorized Officer			

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# WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/JP2005/010997

_	Box i	lo. I Basis of the opinion		
1.	. With regard to the <b>language</b> , this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.			
	la	his opinion has been established on the basis of a translation from the original language into the following inguage—, which is the language of a translation furnished for the purposes of international search under Rules 12.3 and 23.1(b)).		
2.	. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:			
	a. type of material:			
		a sequence listing		
		table(s) related to the sequence listing		
	b. format of material:			
		in written format		
		in computer readable form		
c. time of filing/furnishing:				
		contained in the international application as filed.		
		filed together with the international application in computer readable form.		
		furnished subsequently to this Authority for the purposes of search.		
3.	h: Ci	addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto as been filed or furnished, the required statements that the information in the subsequent or additional opies is identical to that in the application as filed or does not go beyond the application as filed, as oppopriate, were furnished.		
4.	. Additional comments:			

# WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/JP2005/010997

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

1,2,4-11

No: Claims

3

Inventive step (IS)

Yes: Claims

1,2,4-11

No: Claims

3

Industrial applicability (IA)

Yes: Claims

1-11

No: Claims

2. Citations and explanations

see separate sheet

### Box No. VI Certain documents cited

1. Certain published documents (Rules 43*bis*.1 and 70.10) and /or

2. Non-written disclosures (Rules 43bis.1 and 70.9)

see form 210

#### Re Item V.

Reference is made to the following documents (D1-D3), especially to the passages referred to in the Search Report; the numbering will be adhered to in the rest of the procedure:

D1: WO 2004/038512 A (CANON KABUSHIKI KAISHA; MIHARA, CHIEKO; YANO, TETSUYA; KOZAKI, SHINYA;) 6 May 2004 (2004-05-06)

D2: EP 1 336 635 A (CANON KABUSHIKI KAISHA) 20 August 2003 (2003-08-20)

D1 relates to a polyhydroxyalkanoate copolymer which contains a unit having a carboxyl group on a side chain which is similar to the side-chain of the polyhydroxyalkanoate of the present application (formula 5 of claim 3). In addition, the main-chain of D1 corresponds to the formula (5) of claim 3 for the case  $Z_{5a}$  is a linear alkylene chain having 1 carbon atom (CH<sub>2</sub>) and  $Z_{5b}$  is a hydrogen atom.

Therefore, the subject-matter of claim 3 is not novel (Article 33(1)(2) PCT).

D2 relates to a polyxyhdroxyalkanoate which contains a unit having an amide group and a sulfonic acid group on a side-chain. However, the structure of the side-chain of the polyhydroxyalkanoate of D2 is different from the side-chain of the polyhydroxyalkanoate of the present application (formula 1 of claim 1) because it contains additionally a sulfide group (-S-).

Therefore, the subject-matter of claims 1 and 2 is considered to be novel and inventive (Article 33(1)(2)(3) PCT).

The subject-matter of claims 4-11 is also considered to be novel and inventive (Article 33(1)(2)(3) PCT).

Furthermore, all claims fulfill the requirements of industrial applicability (Article 33(4) PCT).